

Morse. (E. S.)

[From the AMERICAN JOURNAL OF SCIENCE AND ARTS, Vol. XVII, p. 257, March, 1869.]

NOTE ON THE EXTENSION OF THE COILED ARMS IN RHYNCHONELLA.

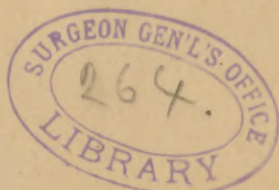
By EDWARD S. MORSE.

YEARS ago Von Buch recorded that Otto Frederic Müller had observed *Rhynchonella psittacea* protrude its arms beyond the anterior borders of the shell. This single observation was not widely accepted, and many doubted the possibility of the arms being exerted in this manner. In the year 1872, while studying living *Rhynchonella* in the St. Lawrence, I observed a specimen protrude its arms to a distance of four centimeters beyond the anterior borders of the shell, a distance nearly equalling twice the length of the shell. This year I again had an opportunity of studying *Rhynchonella* in Hakodate, Yesso, and again observed the same features. Specimens lying on the bottom of a glass dish protruded their arms a short distance and remained in this position for hours. A figure is here given representing the appearance of one of them. The movements of the arms were very sluggish though the cirri were constantly in motion. Sometimes the shells closed upon the arms before they were retracted.

Lingula has the power of partially protruding its arms, as I have repeatedly observed in North Carolina and Japanese species. *Terebratulina* can also partially protrude the cirri.



Tokio, Japan, November 26, 1878.





Morse

Rhynchonella

